

**DESIGN CRITERIA / PRESCRIPTIVE ENERGY CODE**  
**Based on 2018 Codes Revised 10/2018**

<b>Snow Load:</b>	<b>30 lbs/sf</b>
<b>Wind speed:</b>	<b>115 mph for 3 second gust</b> <b>100 mph fastest mile</b> <b><i>D3161 test with Class F Application</i></b>
<b>Wind Exposure:</b>	<b>"C" until proven otherwise for greater restrictions</b>
<b>Seismic Zone:</b>	<b>B</b>
<b>Frost line depth:</b>	<b>36" below finished grade (LMC 15.05.050)</b>
<b>Weathering:</b>	<b>Severe – Climate Zone 5B</b>
<b>Termite:</b>	<b>Slight</b>
<b>Decay:</b>	<b>Slight</b>
<b>Winter Design Temp:</b>	<b>1 degree</b>
<b>Anticipated Snow:</b>	<b>6"</b>
<b>Ice &amp; Water Shield:</b>	<b>Required on ALL Shingled Roofs – Eaves only</b> <i>Must extend from the lowest edges to a point at least 24" inside the exterior wall line of the building.</i>
<b>Drip Edge:</b>	<b>Required on both eaves and rakes of roof.</b>
<b>Air Freezing Index:</b>	<b>&lt;1000</b>
<b>Mean Annual Temp:</b>	<b>47 degrees</b>
<b>Elevation:</b>	<b>5,337 feet above sea level.</b>
<b>Current codes:</b>	<b>2018 IBC, IRC, IFC, IPC, IFGC, IMC, IECC, IEBC, IPMC, 1997 Uniform Code for the Abatement of Dangerous Building Code and NEC 2017</b>

**REMEMBER:**

<b>Sump Pumps:</b>	<b>Can NOT drain into sanitary or storm sewer.</b> <b>Daylight into lawn away from foundation.</b> <b>Perimeter foundation systems go to sump pit then sump pump and sump pump to lawn.</b>
<b>Drainage from House:</b>	<b>Slope at least 6" in the 1<sup>st</sup> 10 feet.</b>
<b>Retaining Walls:</b>	<b>Less than 48" from the bottom of the footing to top the retaining wall with no surcharge does not require a permit.</b> <b>Over 48" from the bottom of the footing to top the retaining wall, or <u>ANY</u> wall with surcharge, requires stamped engineered plans.</b>
<b>Backflow Preventer:</b>	<b>Required on residential irrigation systems. (See cross connection control manual)</b>
<b>Hot Water Heaters:</b>	<b>Require expansion tanks for ALL hot water heaters.</b> <b>Required to have a drain pan if placed on a wood floor.</b>
<b>Solar:</b>	<b>Hi Temp 2% average 34 Degrees C</b> <b>Extreme Minimum -23 Degrees C</b>

- Both Residential and Commercial Heated Structures shall follow all of the following to be considered under the Prescriptive Energy Code. All other energy code options will need to be inspected and Certified before final inspection is done by a third party inspection group.
- Insulation all Heated Structures (including core /shell)
  - R-49 Ceiling
  - R-21 Exterior Walls
  - R-19 Basement Walls
  - R-38 Under Floors (with unconditioned space below)
  - R-10 Under Concrete Slabs/ Heated Slabs R-15
  - R-8 Ducts
  - R-3 Hot Water Lines Insulated
- Windows and Glazing U Factors
  - U- .30 on Glazing Windows/Doors
  - U- .55 on Skylights
- Electrical
  - Structures shall be built to be Solar Ready
  - Timers on Bathroom Exhaust Residential
  - Commercial Buildings Need Light occupant sensors
  - Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage
  - 90% or more of all light fixtures shall contain high-efficiency lamps
- Mechanical
  - Residential Structures      90% Plus Furnaces 90% Plus Boilers
  - Commercial Structures      85% Plus RTU
  - A/C Units-14 SEER
  - Occupancy sensors on Thermostatic set back controls (Brings building to lower temp)
  - Manual J and D will be required on residential additions greater than 500 Sq. Ft.
- Natural Lighting
  - Commercial Buildings need 3% of Roof to be skylights unless used for solar panels
  - Commercial wall glazing shall not be less than 8% of the total floor area.
- Air Changes
  - All New Residential shall be tested to verify air leakage rate does not exceed 3 air changes an hour and shall have whole house mechanical ventilation with section M1505.4.